

FIG.1

CONTROL APPARATUS ACCORDING TO FIRST EMBODIMENT OF PRESENT INVENTION

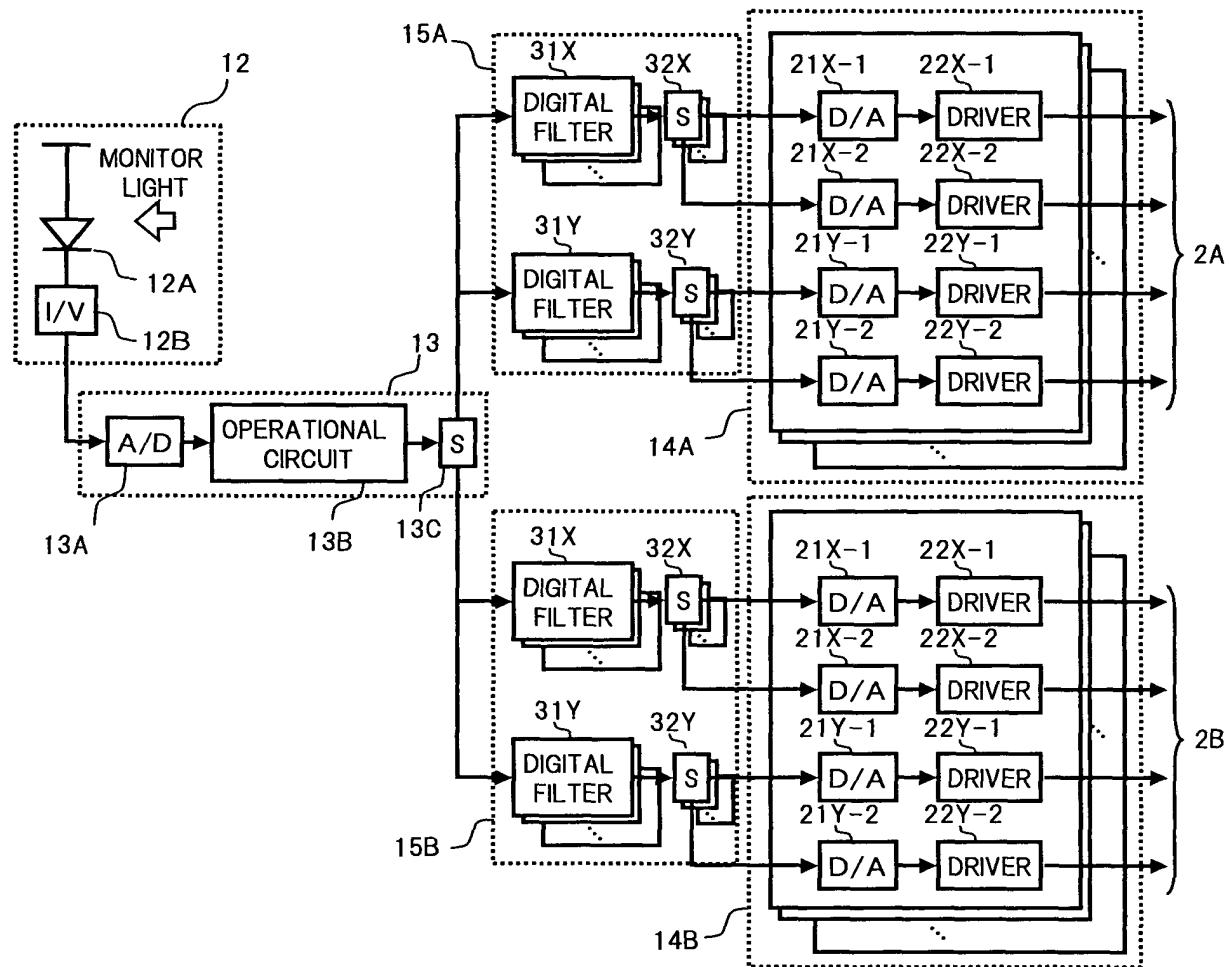


FIG.2

OVERALL CONFIGURATION OF OPTICAL SIGNAL EXCHANGER APPLIED
WITH CONTROL APPARATUS OF PRESENT INVENTION

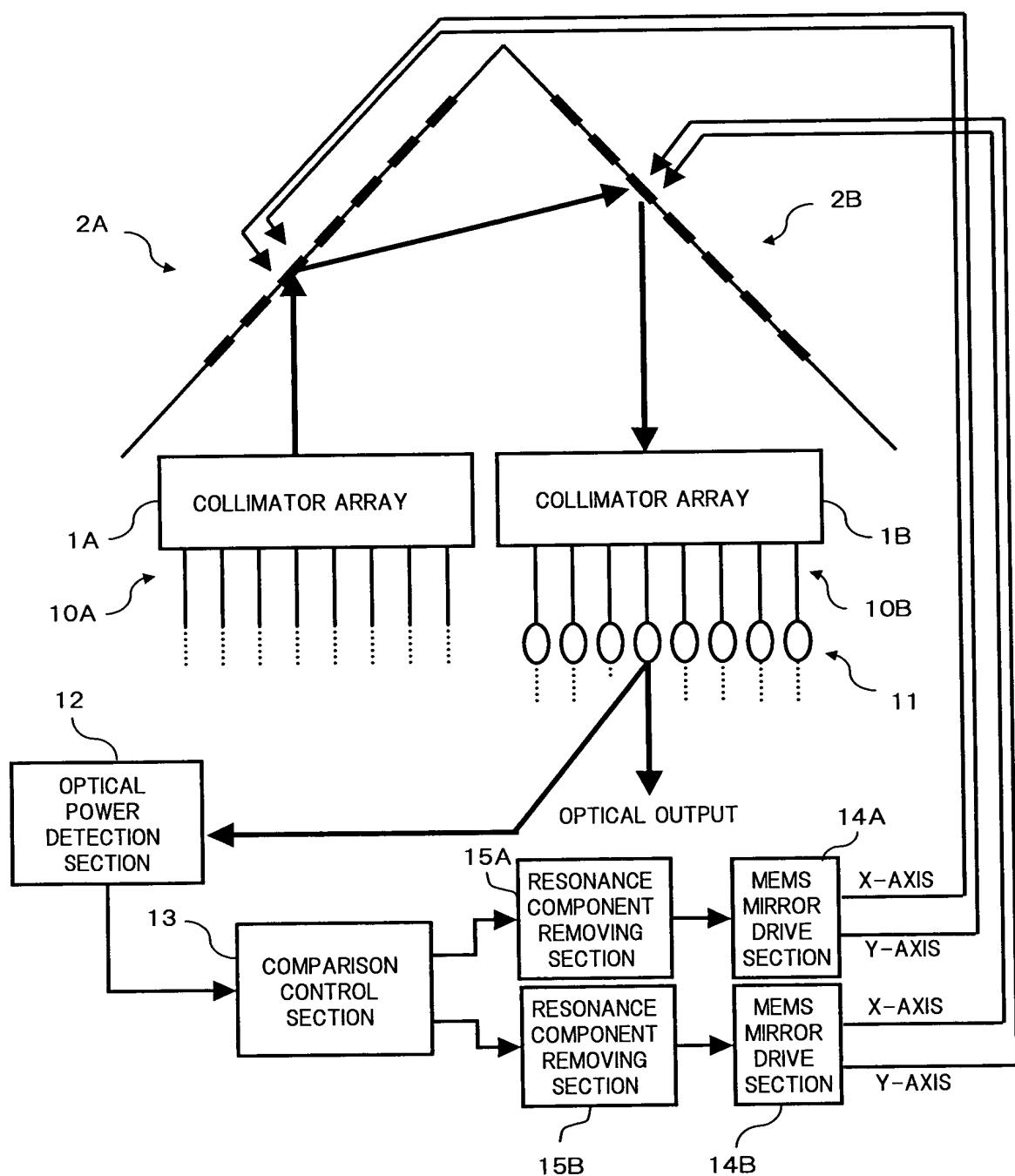


FIG.3

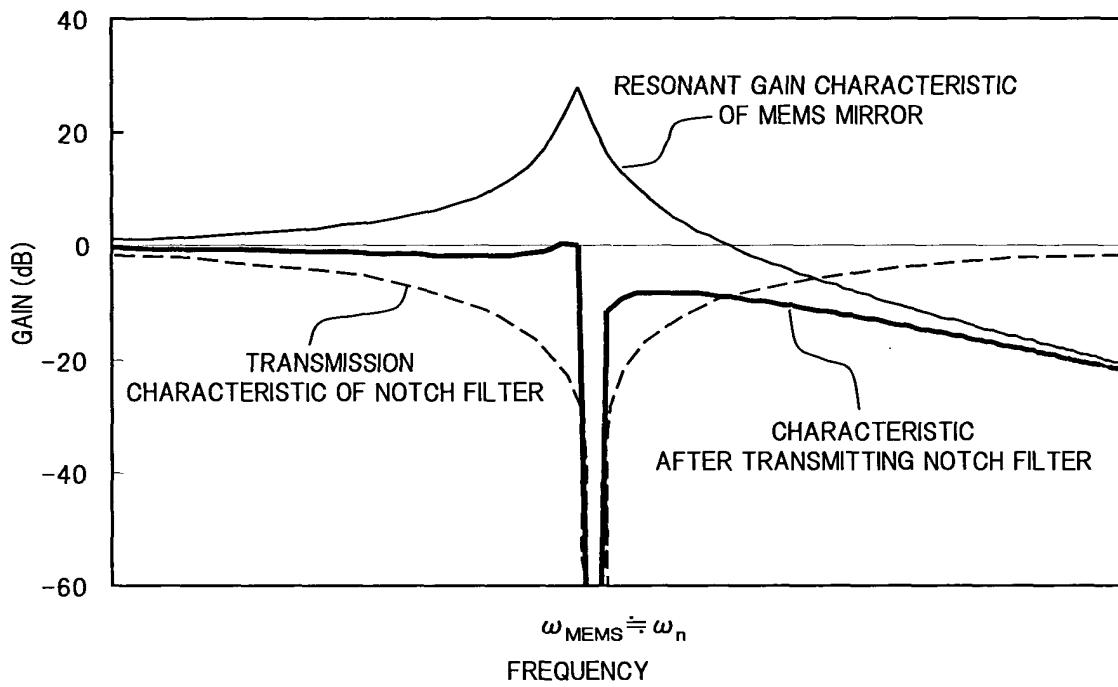


FIG.4

MAIN CONFIGURATION OF CONTROL APPARATUS ACCORDING
TO SECOND EMBODIMENT OF PRESENT INVENTION

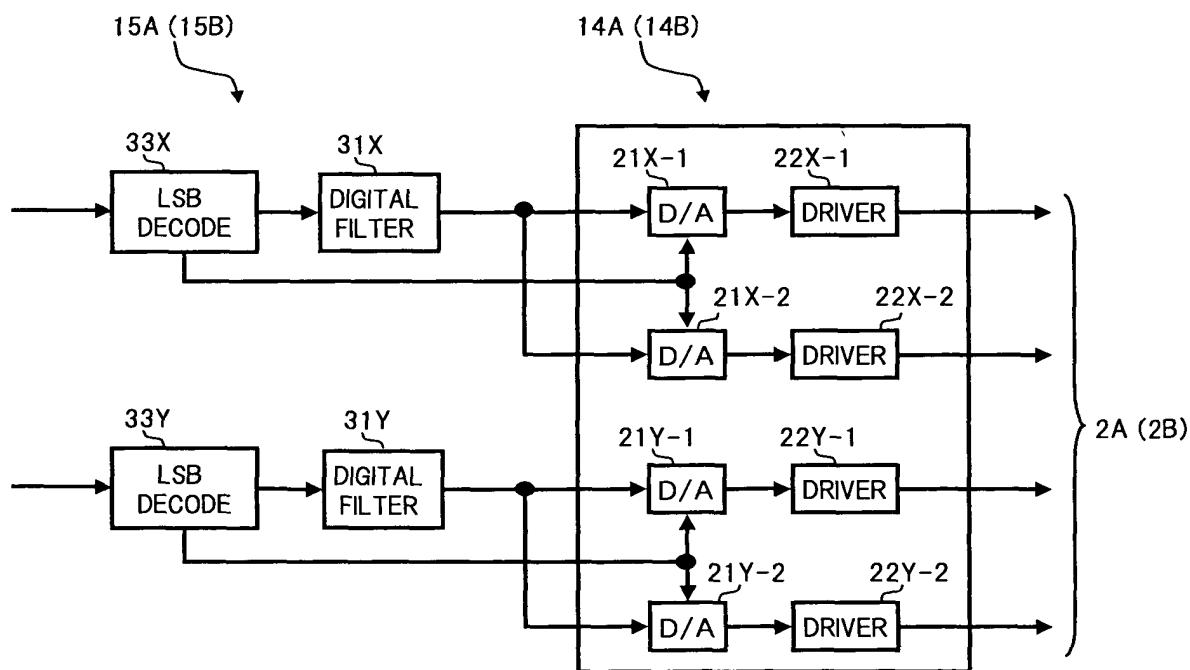


FIG.5

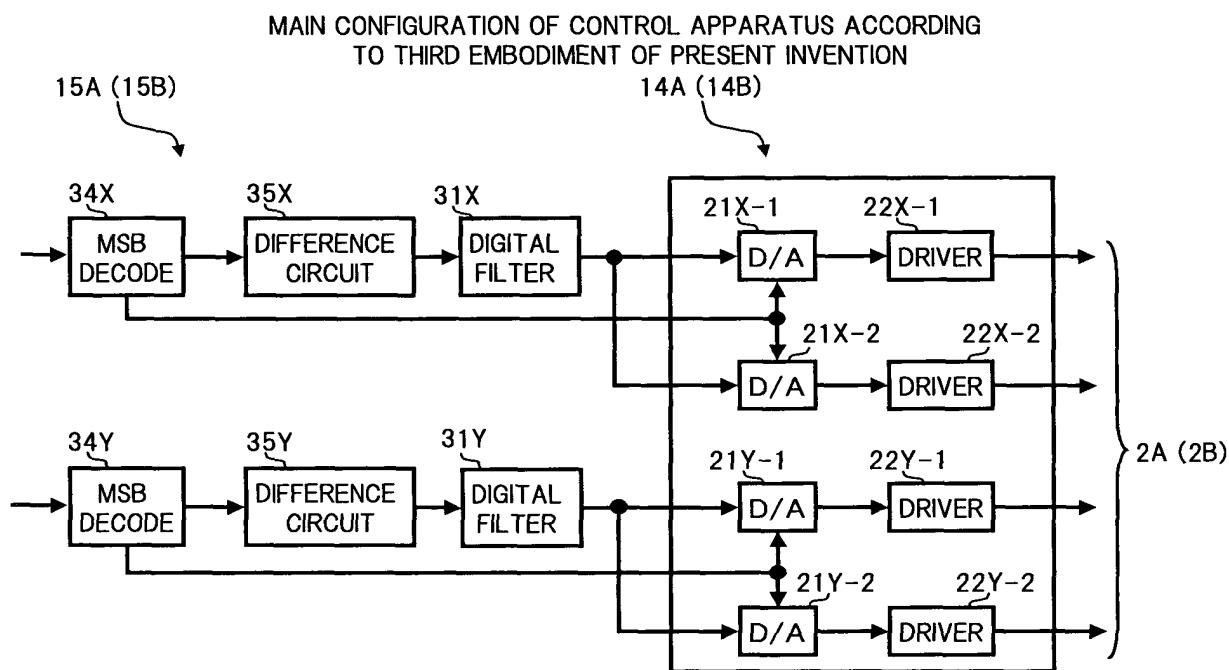


FIG.6

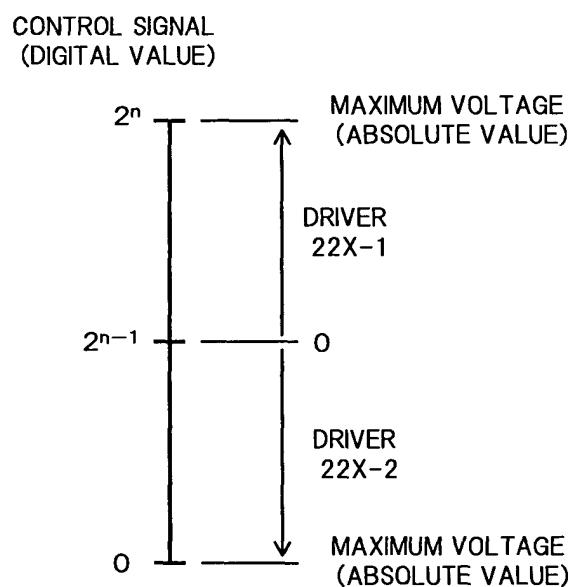


FIG.7

MAIN CONFIGURATION OF CONTROL APPARATUS ACCORDING
TO FOURTH EMBODIMENT OF PRESENT INVENTION

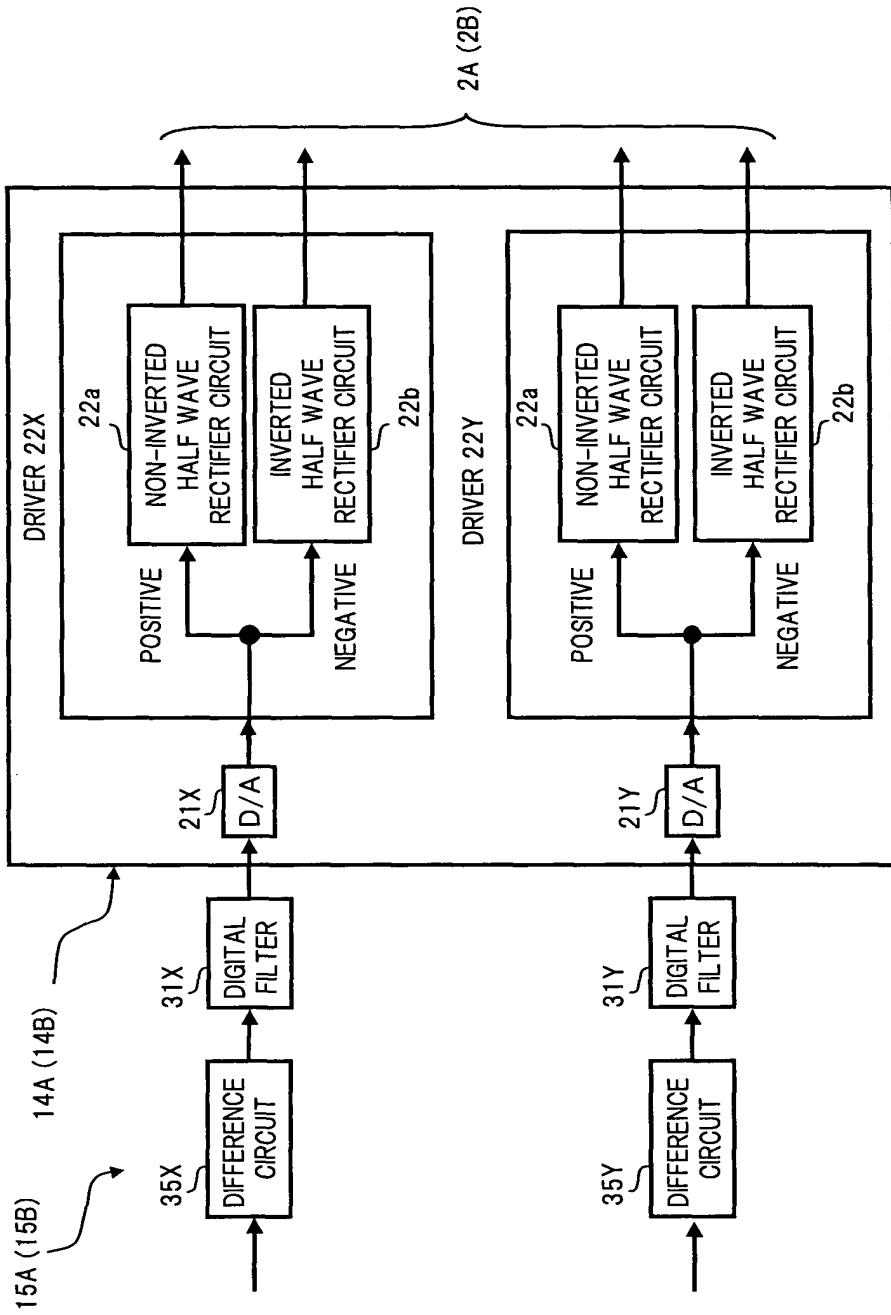


FIG.8

APPLICATION EXAMPLE OF FOURTH EMBODIMENT

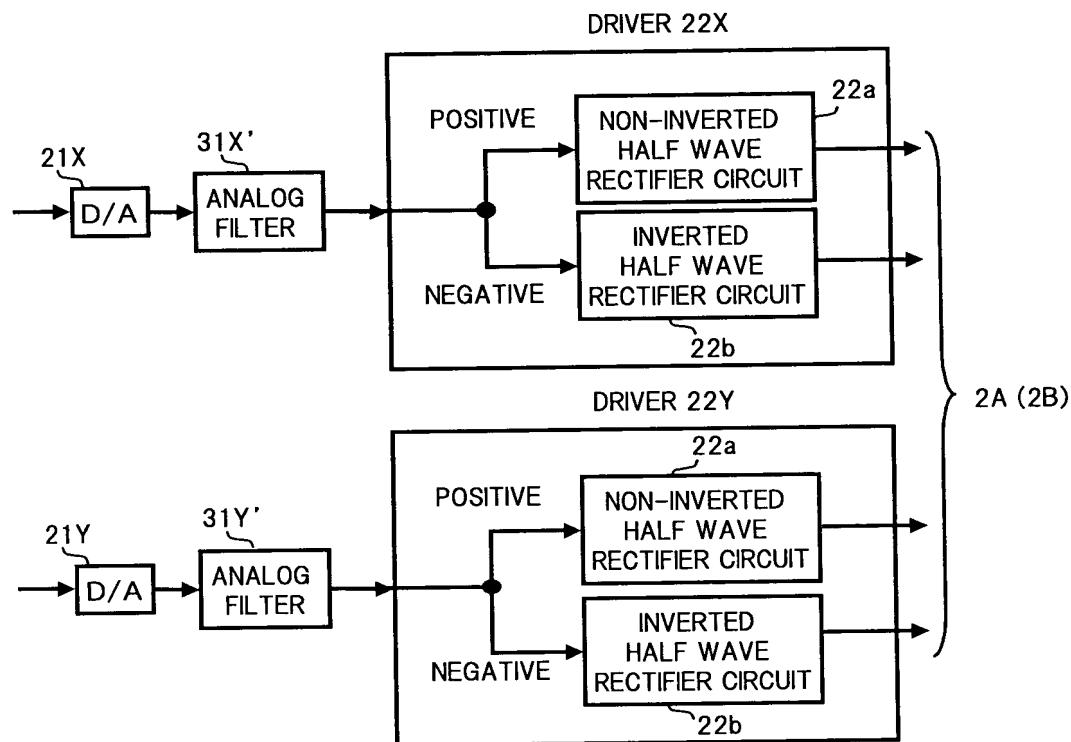


FIG.9

CONTROL APPARATUS ACCORDING TO FIFTH EMBODIMENT OF PRESENT INVENTION

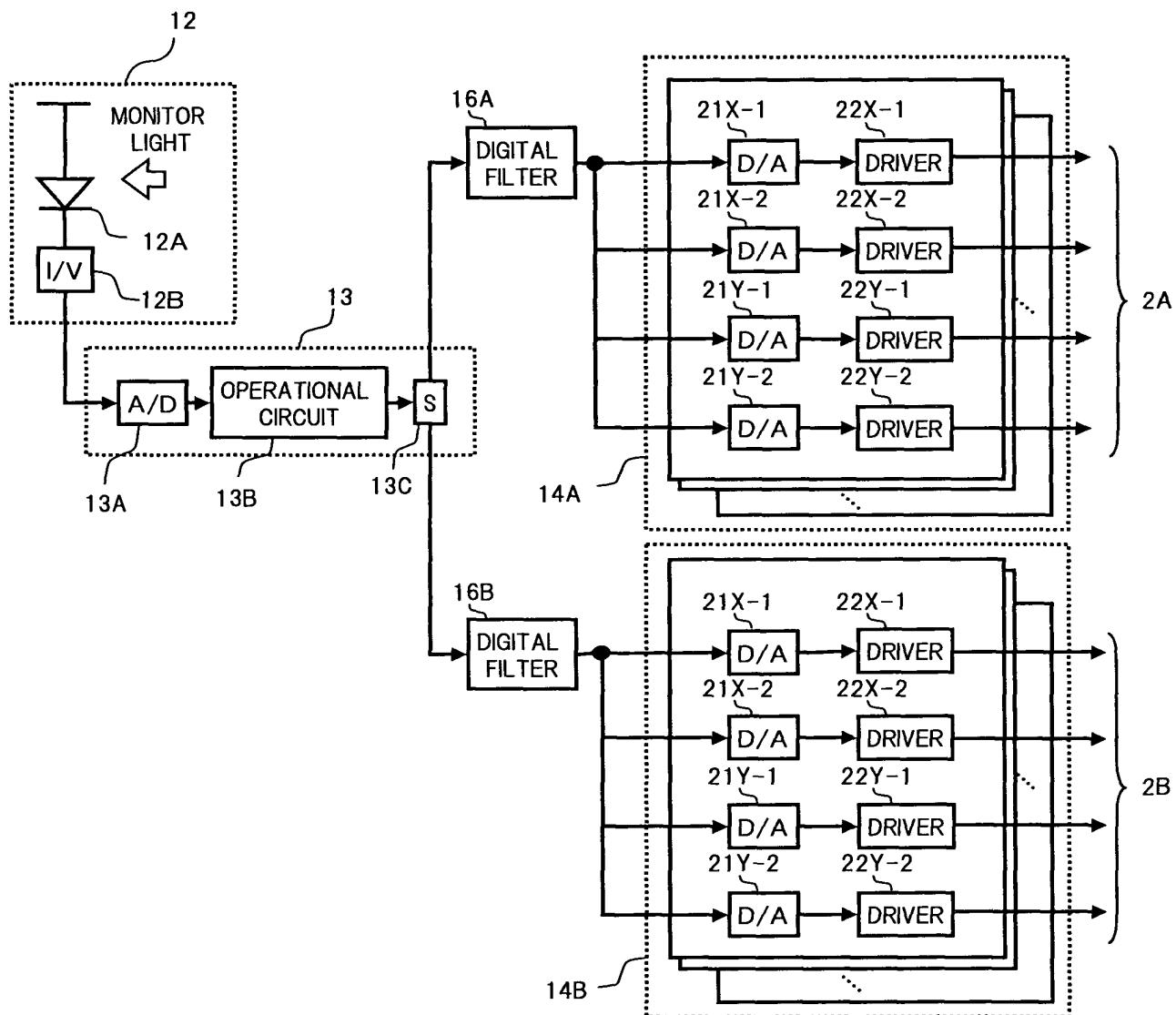


FIG.10

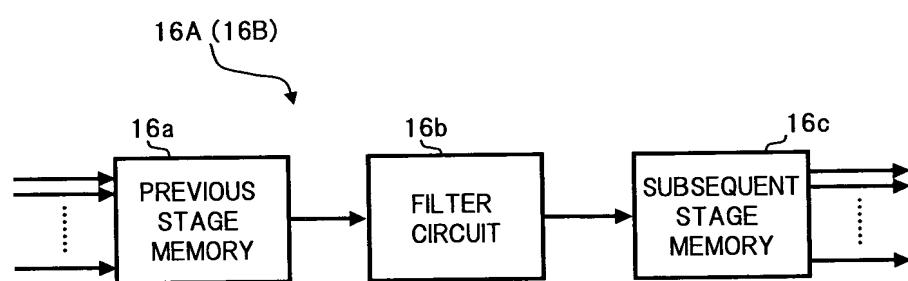


FIG.11

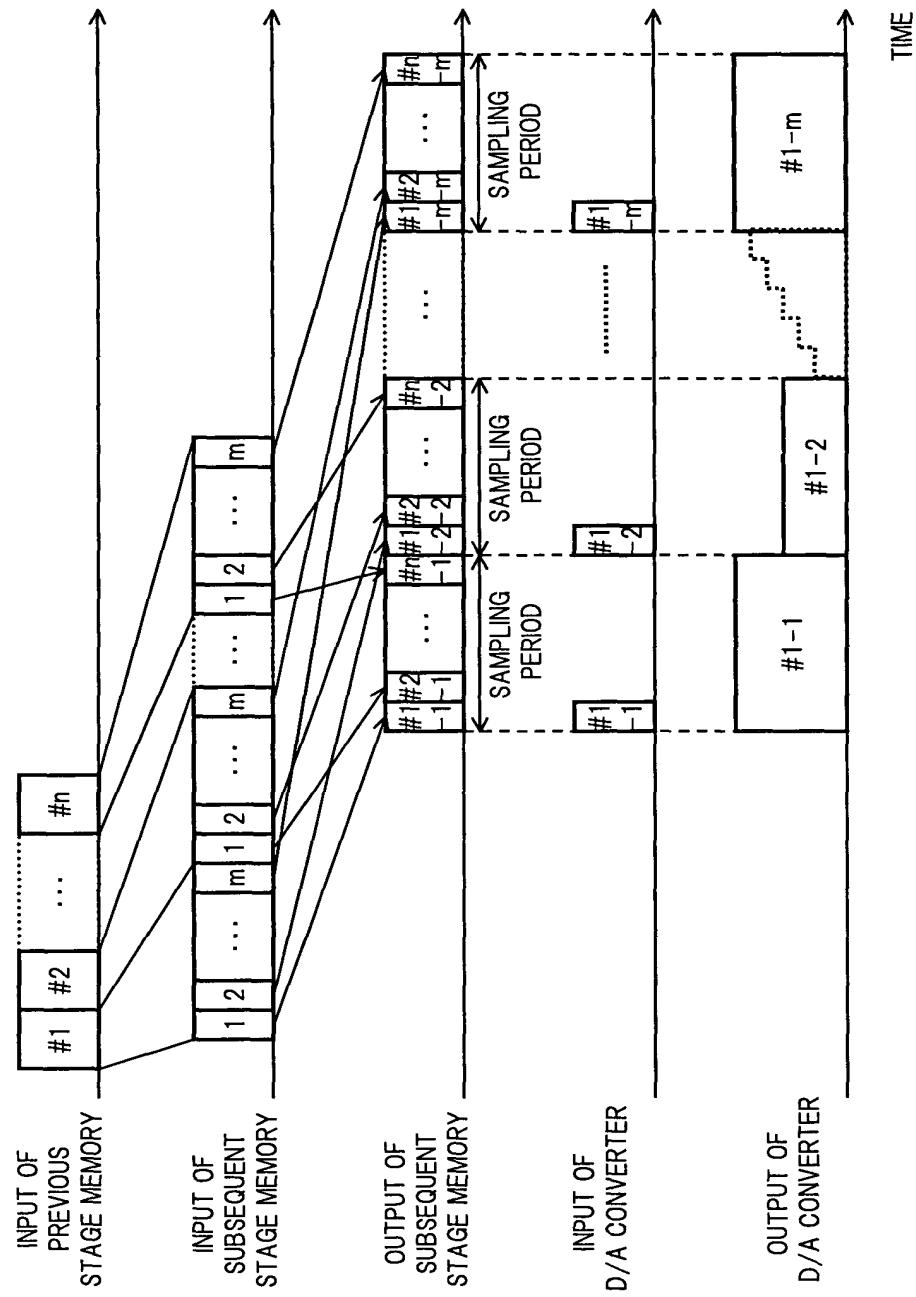


FIG.12

EXAMPLE OF DRIVING WAVEFORM AT TIME OF SWITCHING
DRIVER IN FIRST TO FIFTH EMBODIMENTS OF PRESENT INVENTION

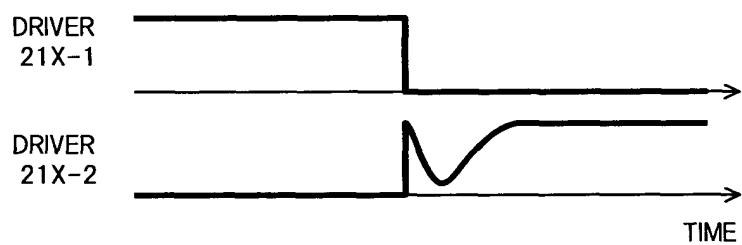


FIG.13

EXAMPLE OF DRIVING WAVEFORM AT TIME OF SWITCHING
DRIVER IN SIXTH EMBODIMENT OF PRESENT INVENTION

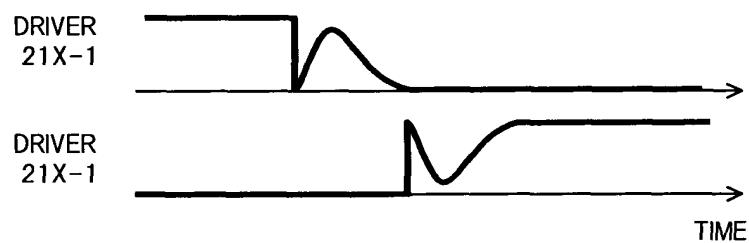


FIG.14

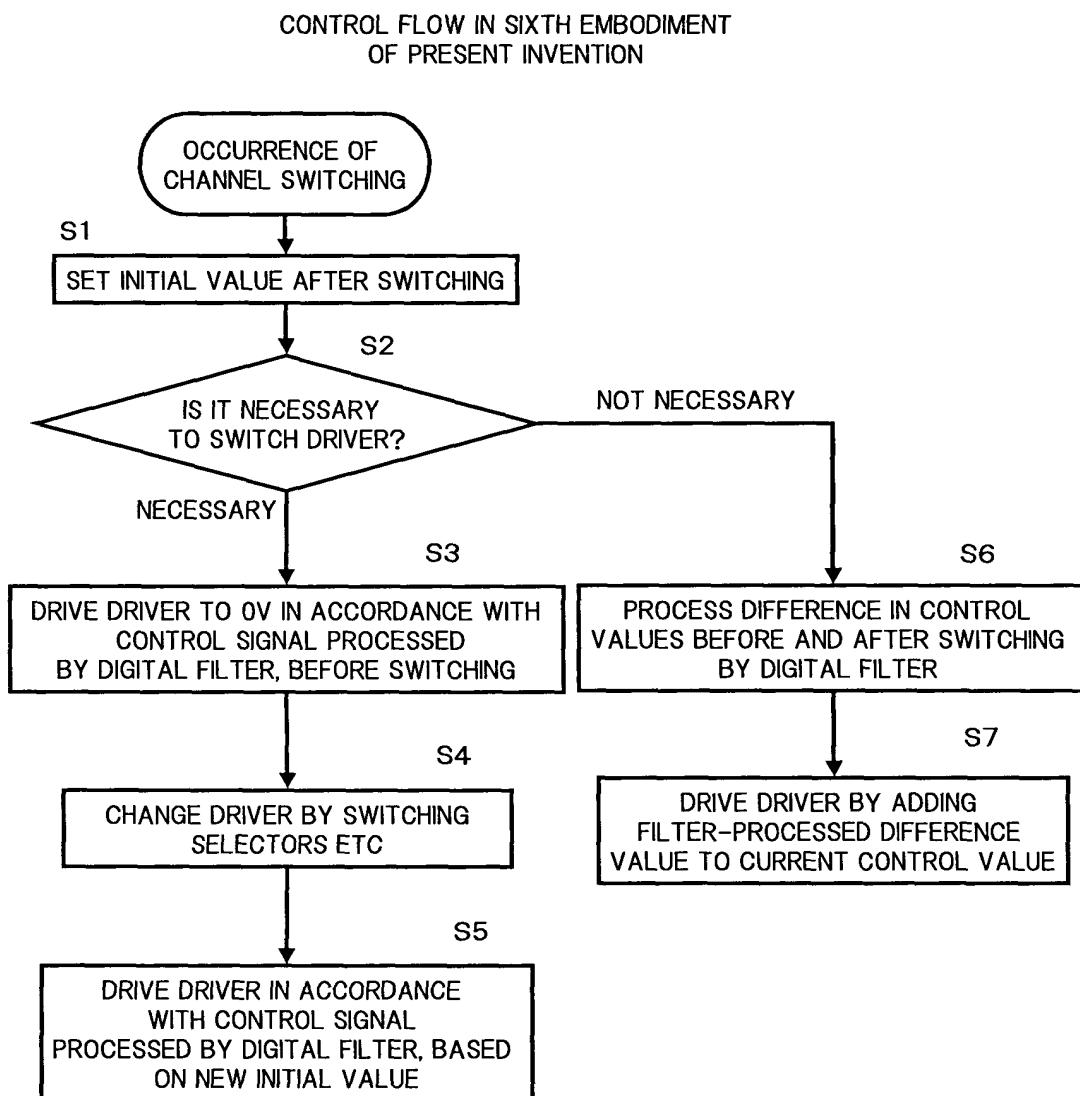


FIG.15

EXAMPLE OF DRIVING WAVEFORM WHEN SWITCHING OF DRIVER IS NOT NECESSARY

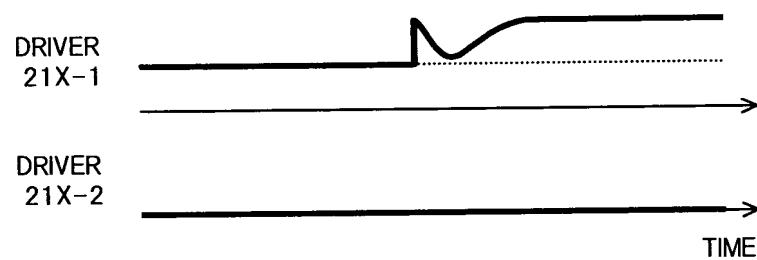
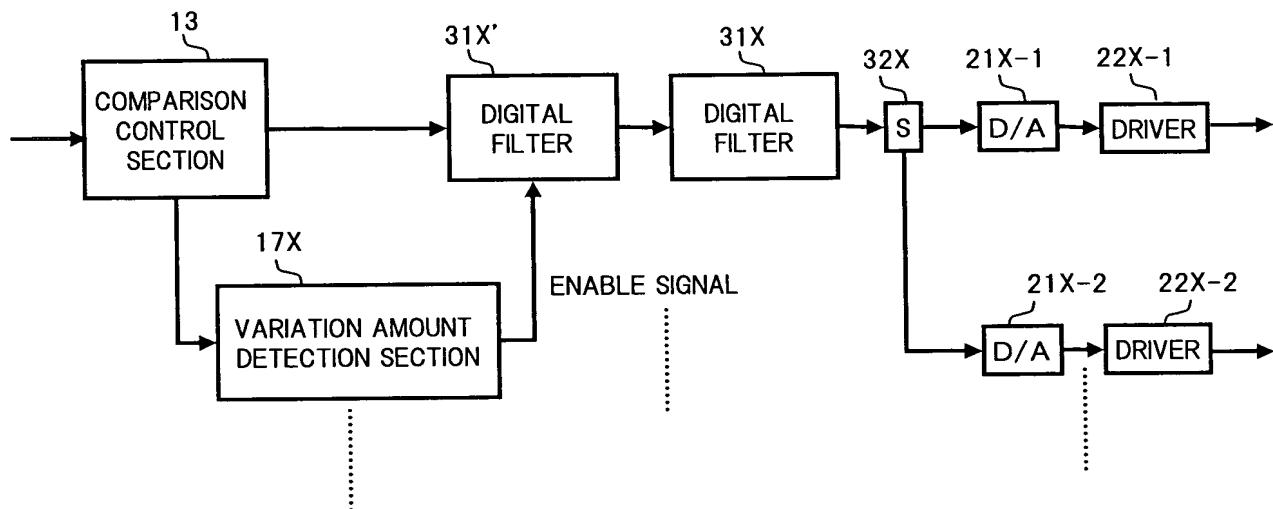


FIG.16

MAIN CONFIGURATION OF CONTROL APPARATUS
ACCORDING TO SEVENTH EMBODIMENT OF PRESENT INVENTION

**FIG.17**

MAIN CONFIGURATION OF RESONANCE COMPONENT REMOVING
SECTION IN EIGHTH EMBODIMENT OF PRESENT INVENTION

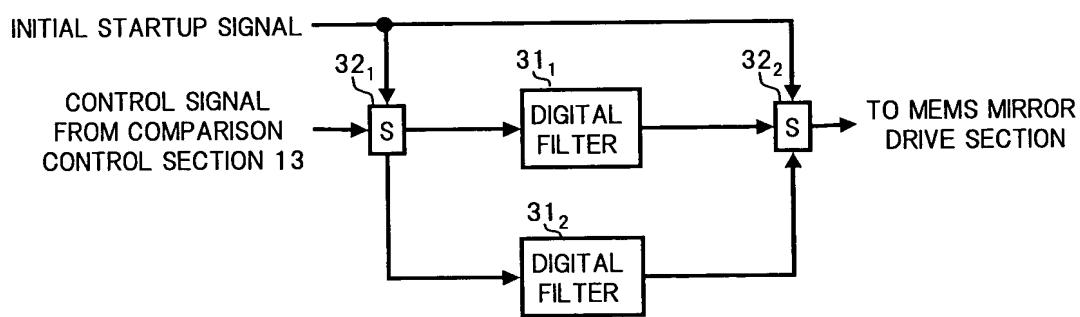


FIG.18

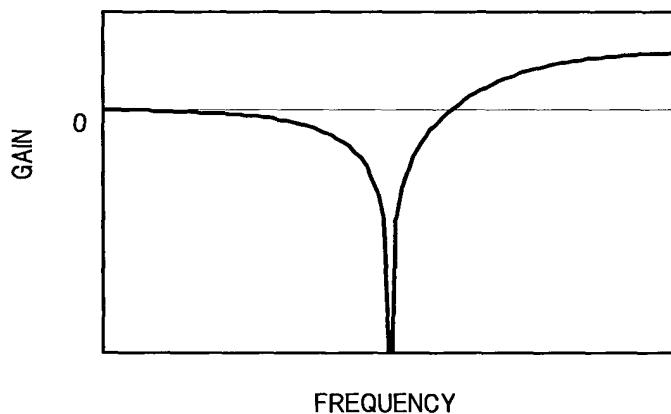


FIG.19

RESPONSE CHARACTERISTIC OF DRIVER

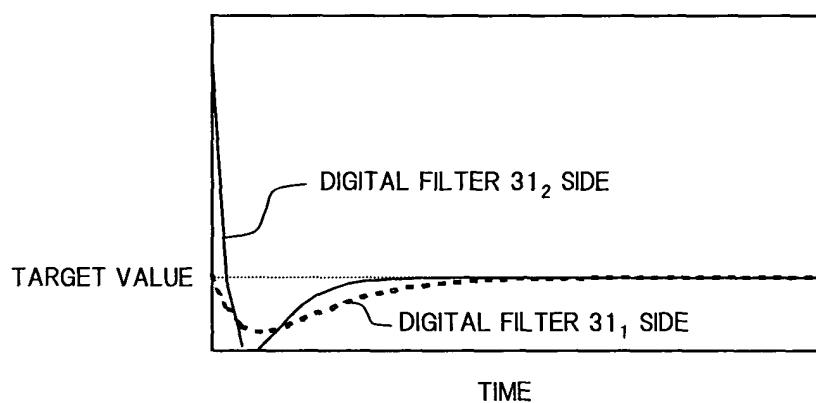
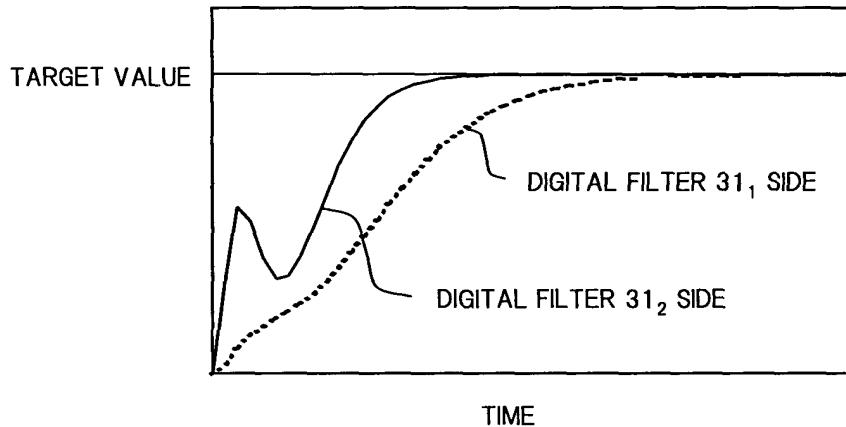


FIG.20

RESPONSE CHARACTERISTIC WHEN TRANSFER FUNCTIONS OF MEMS MIRROR AND DIGITAL FILTER ARE COMBINED

**FIG.21**

APPLICATION EXAMPLE IN EIGHTH EMBODIMENT OF PRESENT INVENTION

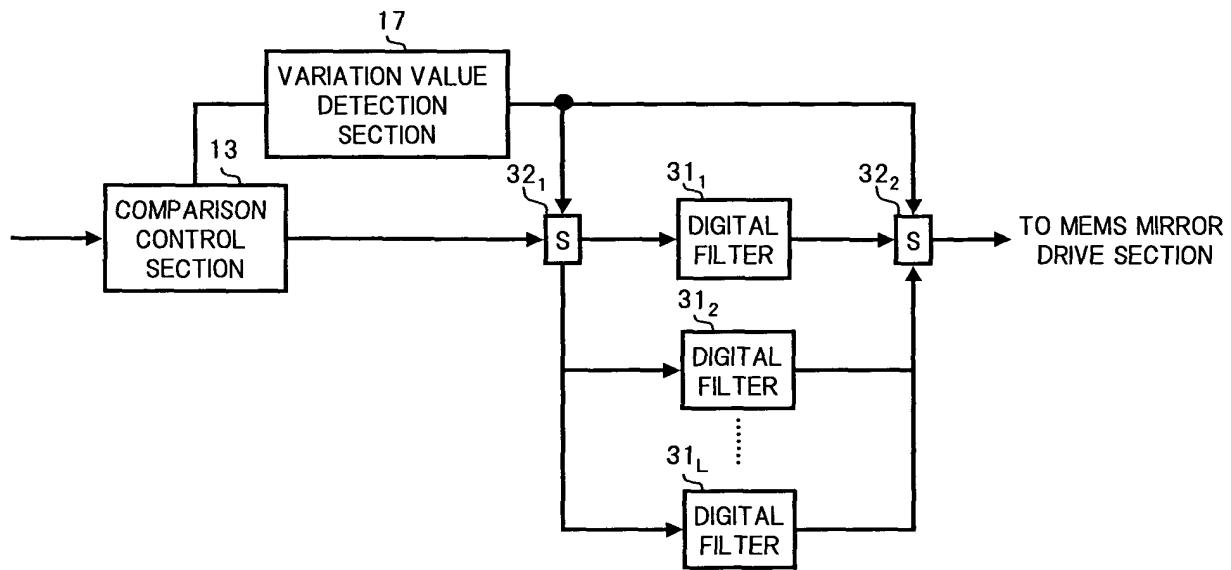


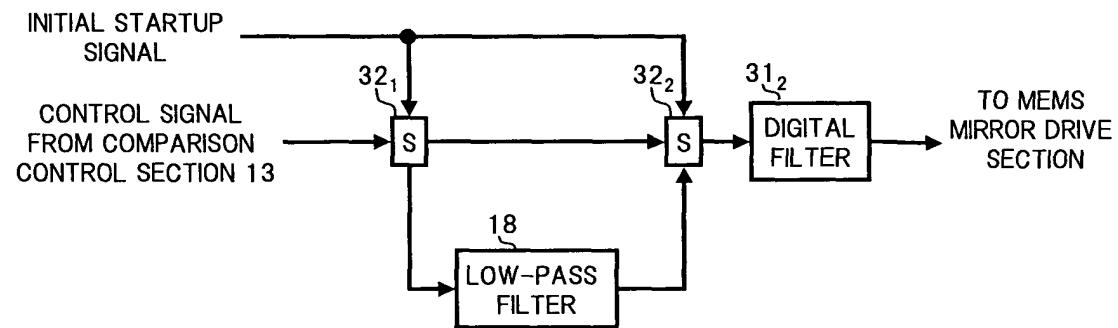
FIG.22OTHER APPLICATION EXAMPLE IN EIGHTH EMBODIMENT
OF PRESENT INVENTION

FIG.23

CONFIGURATION EXAMPLE OF TYPICAL OPTICAL SIGNAL EXCHANGER OF THREE-DIMENSIONAL TYPE

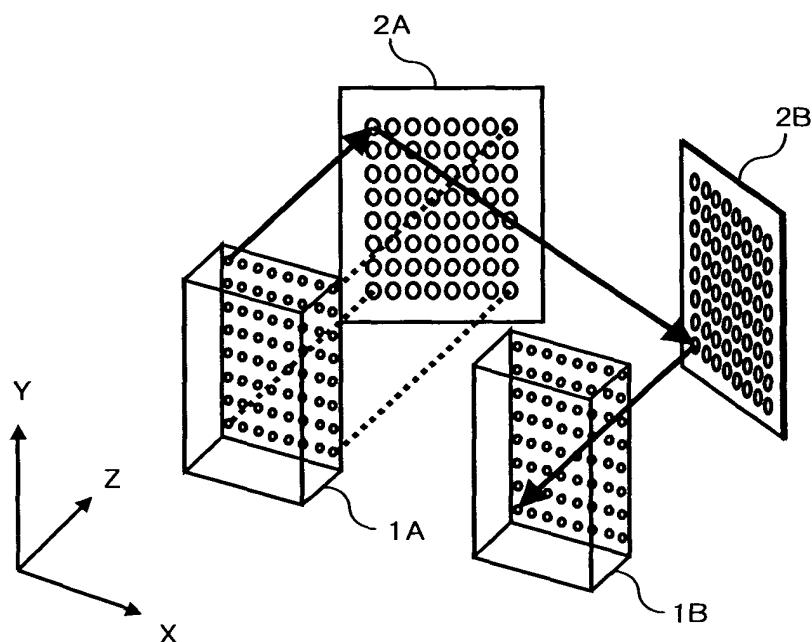


FIG.24

CONFIGURATION EXAMPLE OF CONVENTIONAL CONTROL APPARATUS
FOR REDUCING OPTICAL LOSS TO MINIMUM

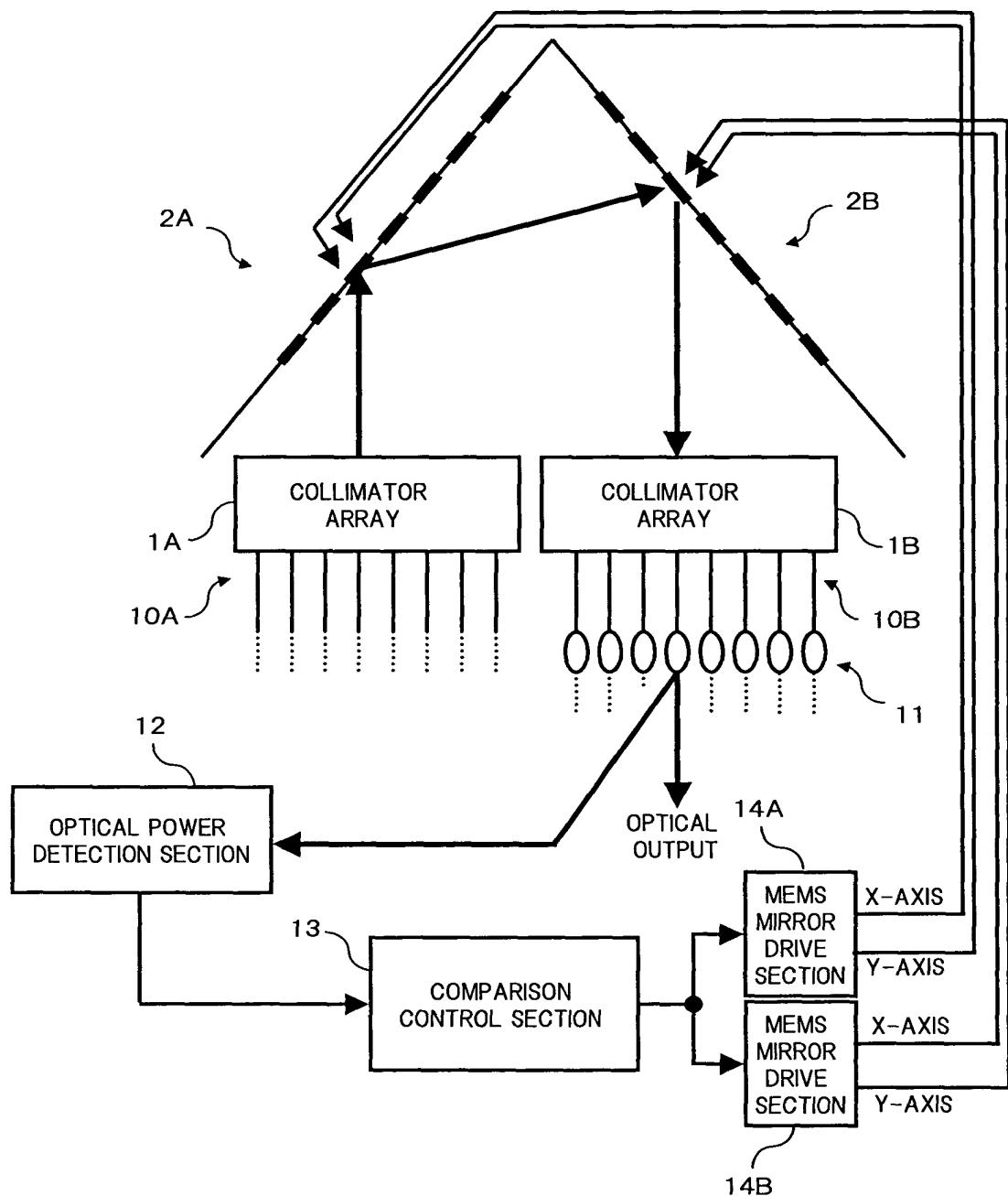


FIG.25

SPECIFIC EXAMPLE OF CONVENTIONAL CONTROL APPARATUS

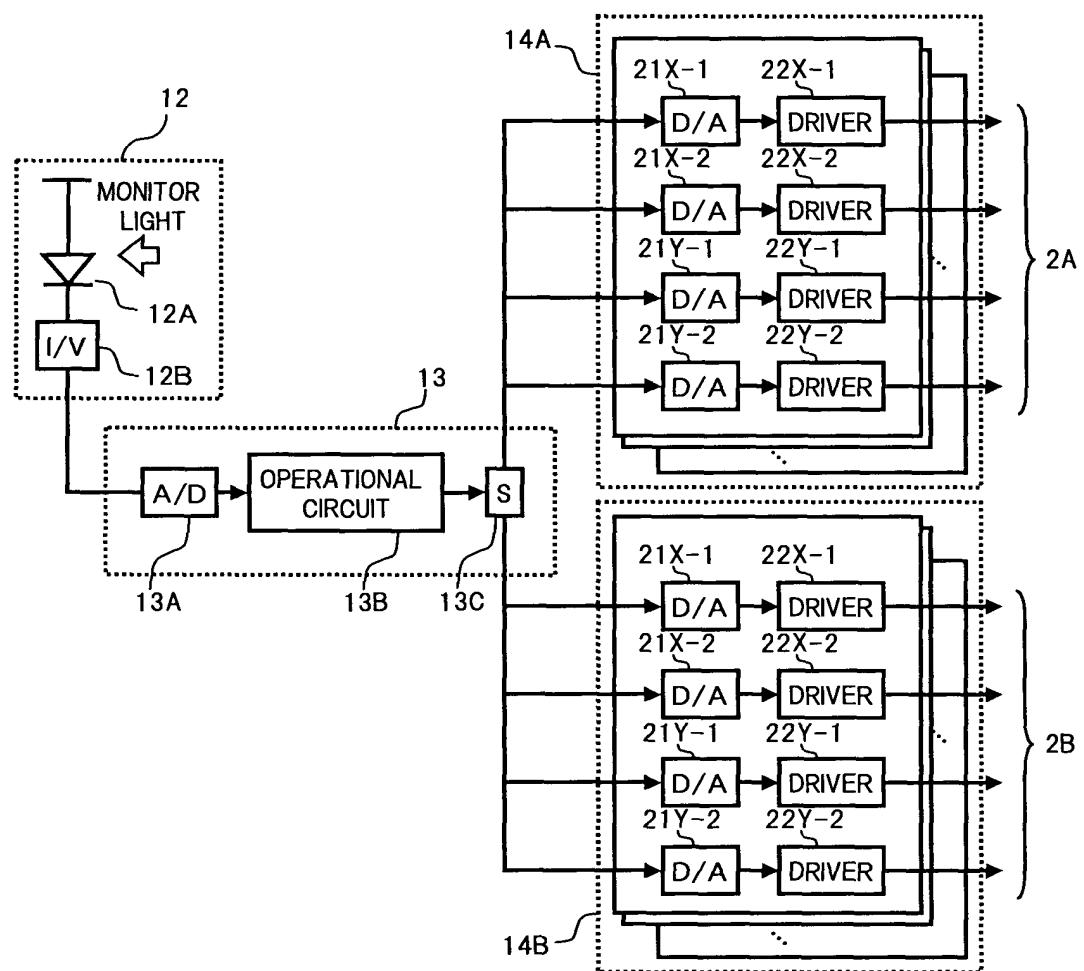


FIG.26

DRIVING STATE OF TYPICAL MEMS MIRROR

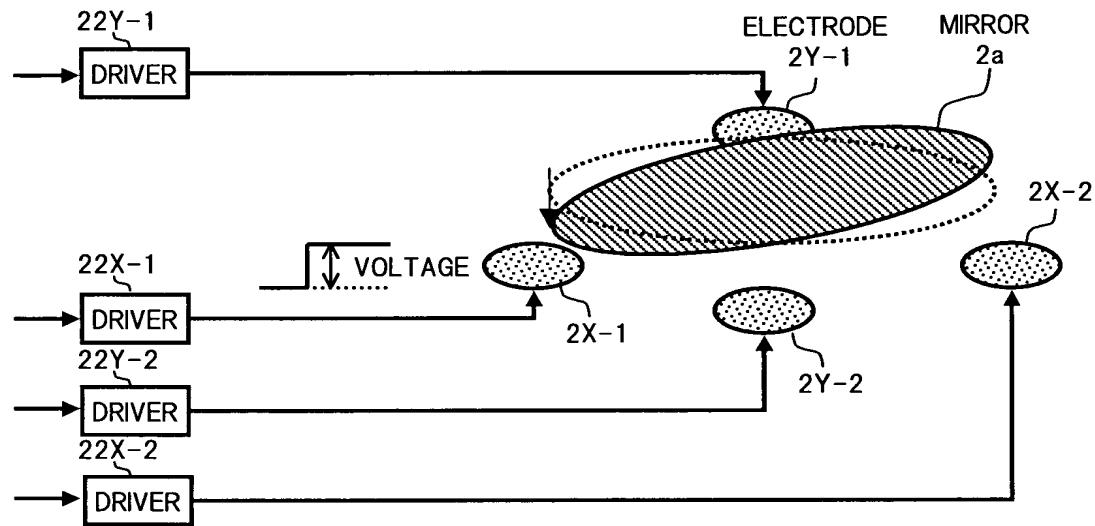


FIG.27

